

What is claimed is:

1. An optical data recording medium comprising a transparent substrate, a thin film layer formed on the
- 5 transparent substrate and a protective film which is mainly comprised of a resin and formed on the thin film layer for protecting the thin film layer, wherein the thin film layer is a single layered or multilayered film including at least any one of a dielectric film, a recording film and a reflective film, and at
- 10 least either one of a linear expansion coefficient and a Young's modulus of the protective film is greater than that of the transparent substrate, the linear expansion coefficient of the protective film being greater than 7.0×10^{-5} (1/°C) and smaller than 5.0×10^{-4} (1/°C).
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2. An optical data recording medium comprising a transparent substrate, a thin film layer formed on the transparent substrate and a protective film which is mainly comprised of a resin and formed on the thin film layer for protecting the thin film layer, wherein the thin film layer is a single layered or multilayered film including at least any one of a dielectric film, a recording film and a reflective film, and at least either one of a linear expansion coefficient and a Young's modulus of the protective film is greater than that of the
- 20 transparent substrate, the Young's modulus of the protective
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film being greater than 2.0×10^9 (Pa) and smaller than 1.0×10^{10} (Pa).

3. An optical data recording medium according to any
5 one of claims 1 and 2, wherein a thickness of the protective
film is 5 μm or more to 20 μm or less.
4. An optical data recording medium according to claim 1,
wherein the linear expansion coefficient of the protective film
10 is 1.5 to 3 times as great as that of the transparent substrate,
the linear expansion coefficient being greater than 1.0×10^{-4}
($1/\text{C}$) and smaller than 2.0×10^{-4} ($1/\text{C}$).
5. An optical data recording medium according to any
15 one of claims 1 and 2, wherein the transparent substrate is
made of a polycarbonate or a polyolefin and a thickness thereof
is about 0.5 mm.
6. An optical data recording medium according to any
20 one of claims 1 and 2, wherein the protective film is made of
an ultraviolet light curing resin.
7. A method of selecting a protective film in an optical
data recording medium, the optical data recording medium
25 comprising a transparent substrate, a thin film layer formed on

the transparent substrate and the protective film which is mainly comprised of a resin and formed on the thin film layer for protecting the thin film layer, wherein, on condition that the thin film layer is a single layered or multilayered film

- 5 including at least any one of a dielectric film, a recording film and a reflective film and the transparent substrate is made of a polycarbonate or a polyolefin with a thickness of 0.5 mm, the protective film is selected such that at least either one of a linear expansion coefficient and a Young's modulus of the
- 10 protective film is greater than that of the transparent substrate and the linear expansion coefficient of the protective film is greater than 7.0×10^{-5} (1/°C) and smaller than 5.0×10^{-4} (1/°C).

- 8. A method of selecting a protective film in an optical data recording medium, the optical data recording medium comprising a transparent substrate, a thin film layer formed on the transparent substrate and the protective film which is mainly comprised of a resin and formed on the thin film layer for protecting the thin film layer, wherein, on condition that the thin film layer is a single layered or multilayered film including at least any one of a dielectric film, a recording film and a reflective film and the transparent substrate is made of a polycarbonate or a polyolefin with a thickness of 0.5 mm, the protective film is selected such that at least either one of a linear expansion coefficient and a Young's modulus of the
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protective film is greater than that of the transparent substrate and the Young's modulus of the protective film is greater than 2.0×10^9 (Pa) and smaller than 1.0×10^{10} (Pa).

- 5 9. An optical data recording medium provided with a protective film for protecting a thin film layer selected by the method of claim 7 or 8.